
INSTRUCTIONS AND GENERAL CONDITIONS TO BIDDERS

NEW 2016 Type 1 Ford F350, 84"CA (4x2) AMBULANCE

GENERAL INFORMATION

Goods/Services. The County of Macon, Georgia is seeking proposals for a NEW 2016 Type 1 Ambulance as described in the attached Technical Specifications and consistent with the terms and conditions of the "Contract Documents," defined below. Each firm responding to this Request for Proposals will be referred to as the "Bidder" and the firm selected to provide services to Macon County together with its owners, officers, employees, agents, and/or subcontractors, will be referred to as the "Contractor".

Bid Opening: Award. All bids shall be sealed and delivered no later than Tuesday, June 9th, 2015 at 2:00 P.M. Pursuant to Macon County Code of Ordinances. The County reserves the right to award this bid as the County's best interests shall dictate, in the light of bid prices/options, the reputation and past performance of the bidder(s), and other factors. The County reserves the right to reject any or all bids, in whole or in part, and is not obligated to accept the lowest bid if that bid is contrary to the best interests of the County, in the sole discretion of the County. A bid may be rejected if it is in any way incomplete or irregular; however the County reserves the right to waive minor irregularities.

Communication with the County Macon: It is the responsibility of the Bidder to inquire with the County of Macon to clarify any requirement of the Request for Proposals or the Contract Documents that is unclear to Bidder. The County's responses to such inquiries, if they change or clarify the Request for Proposals, will be forwarded by addenda to all parties known to the County to have obtained a copy of the Request for Proposal for the purpose of submitting a bid. The County will not be bound by oral responses to inquiries or written responses other than addenda. Inquires must be made to: Macon County EMS, Attn: Joe Weaver, (Director), 517 Sumter Street, Montezuma, GA 31063. Contact number: (478) 472-6053, email: mcemsdirector@windstream.net

Submission. Bids are to be sealed and, once received by the County, shall be retained unopened and secure until the time and date of the Bid Opening set forth herein. All bids shall be delivered to Macon County Board of Commissioners, 121 South Sumter Street, P.O. Box 297, Oglethorpe, Georgia 31068. Faxed or e-mailed bids will not be accepted.

Bid documents shall be enclosed in an envelope sealed and clearly labeled, "**NEW 2016 TYPE 1 AMBULANCE: DEADLINE : TUESDAY, JUNE 9, 2015 @ 2:00 p.m.**"

Bid Opening. At the time fixed for the opening of bids, the material contents of all bids shall be made public. Bidders and members of the public are welcome to attend the Bid Opening.

Contractor shall cause the County to be named as an additional insured on each policy of insurance required herein, and the Certificates or other evidence of such policies shall contain statement of the insurer's obligation to notify the County at least fifteen (15) days prior to the cancellation of such policy. In the event the County is required to defend itself against any claims for which insurance coverage is required by this Contract, Contractor shall pay the cost of defense.

Payment. Payment will be upon submittal of an invoice to the Finance Department of the County by the Successful Bidder on a (C.O.D.) unless discount terms are offered. Invoices must include purchase order number. Requisitions are to be approved by the County.

Sales Tax. This project is exempt from State Sales and Use or Excise Taxes to the extent allowed by law.

Delivery. The apparatus shall be delivered to the County as soon as possible following the Notice to Award, but in no event later than that date which is 120 days from the date of the Notice of Award and/or after chassis is delivered to the manufacturer. Notice shall be provided to Macon County EMS Director when the chassis arrives at the builder's facility. The bidder shall state the estimated delivery time on the Official Bid Form in the space provided. The County representative shall be notified at least forty-eight (48) hours in advance of the delivery date and time.

The Contractor shall notify the County in writing of both the tentative shipment date and the actual shipment date of the ambulance from the vehicle manufacturer promptly upon receipt of such dates from the vehicle manufacturer.

The unit, to ensure proper break in of all components while still under warranty, shall be delivered under its own power. Rail or Truck freight is not acceptable. A qualified driver representing the bidder shall deliver the unit and remain in the County of Macon a sufficient length of time to instruct the EMS personnel in the proper operations, care and maintenance of the equipment delivered. The representative shall represent the bidder during the acceptance test and inspection. If the unit is accepted, the County will make payment in the amount of the awarded bid.

Bid Form. The bid shall be in the form of a firm price for the entire contract period. The bid price shall include, and Contractor shall be responsible for all costs and charges other than the bid price, including without limitation storage, transportation / delivery, environmental fees, insurance, bonding, and all other costs. The County shall not be responsible for any charges or cost not set forth in Contractor's bid documents.

LEAVE BLANK

IT IS AGREED BY THE UNDERSIGNED BIDDER THAT THE SIGNING AND DELIVERY OF THIS BID REPRESENTS THE BIDDER'S ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FOREGOING SPECIFICATIONS AND PROVISIONS, AND IF AWARDED THE BID BY THIS AGENCY, WILL REPRESENT THE AGREEMENT BETWEEN THE PARTIES.

Sign in ink in the space provided below. UNSIGNED bids will be considered incomplete and will be subject to rejection.

Name of Firm: _____

Signed (in ink): _____
(Signature of Officer of Company)

Title: _____ Date Signed: _____

Street Address: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Numbers: Phone: _____ Fax: _____

Email Address: _____

Ambulance
Manufacturer: _____

Model Year: _____ Model Designation: _____

Delivery will be made within _____ days of receipt of chassis by the Manufacturer

Bid Amount: _____ \$

TOTAL
BID AMOUNT: _____ \$
TYPE 1 EMERGENCY VEHICLE

SPECIFICATION EVALUATION CHECKLIST

<u>ITEMS INCLUDED</u>	<u>INITIAL</u>
CURRENT KKK-A-1822F CERTIFICATION	_____
CURRENT Q.V.M. CERTIFICATION	_____
PRODUCT LITERATURE	_____
PRODUCT BUILD SPECIFICATIONS	_____
ALL APPLICABLE WARRANTY DOCUMENTS	_____
PROPOSAL DRAWINGS	_____
INSURANCE CERTIFICATE	_____
COPY OF DEALER'S LICENSE	_____
COMPLETED BID FORM	_____
COMPLETED NON-COLLUSIVE CERTIFICATE	_____
REFERENCES	_____
LIST OF SERVICE FACILITIES	_____
BID DOCUMENT WITH YES/NO RESPONSES	_____
TOTAL NUMBER OF YES's	_____
TOTAL NUMBER OF NO's	_____

STATEMENT OF COMPLIANCE/DEVIATIONS FROM SPECIFICATIONS.

The Bidder proposes the following deviations from the Specifications and/or Drawings, which the Bidder represents and warrants as being fully equal or superior to the requirements of the Specifications and Drawings, for the reason(s) set forth fully below (attach additional sheets if necessary):

If there are no deviations from the Specifications and/or Drawings, please state same.

I certify that the foregoing fully and completely describes each proposed deviation, if any, and the reason why each deviation is fully equal or superior to those in specified in the Detailed Specifications.

BIDDER: _____

BY: _____

ITS: _____

Intent of this Bid

This Request for Bid (RFB) is intended to provide vendors with a common, uniform set of specifications to assist them in the development of their bids and to provide a uniform method for the bidding agency to fairly evaluate bids and subsequently select a vendor from which to purchase these ambulances.

The following specification describes a new ambulance that is expected to be acquired by this purchaser. The specification describes the needs of this purchaser as far as chassis configuration and module body design. A state of the art vehicle is required. However, manufacturers that utilize prototype equipment will not be considered. The builder's manufacturing history shall be supported by documentation where applicable, and by the reference section within this specification. The benchmark for the initial configuration of this ambulance shall be the current KKK Federal Specification for Ambulances, Ambulance Manufacturers Division Standards, Federal D.O.T specifications and/or regulations, applicable NFPA Standards, all State of Georgia Emergency Medical Services and Georgia Bureau of Labor Standards rules, laws and standards. However, most requirements in this specification exceed the federal specifications because of the specific needs of this purchaser. Please note that the following specifications represent minimum general terms or requirements. While it is not the intent of this purchaser to preclude any qualified bidder from submitting a proposal, it must be clear that any bidder deviating in any substantial manner from these specifications will be rejected as being non-compliant.

In responding to this RFP, vendors should follow the prescribed format and use the forms included, thus providing the County with data that is easily compared with data submitted by other vendors in order to fairly and objectively evaluate the proposal.

Each bid shall be accompanied by a set of "Contractor's Specifications" consisting of a detailed description of the unit and equipment proposed and to which the unit furnished under contract must conform. These specifications shall indicate size, type, model, and make of all components parts and equipment. Drawings including dimensions showing the unit as proposed in the bid shall be submitted with the bid documents.

NOTE: Bidders that simply check each box is not enough, each bidder will be required to submit with their bid proposal, "ACTUAL" detailed specification and drawings describing what they are providing. This way the County will be able to compare each bidder's package to this bid specifications. If a bidder does not comply with this section there bid will be deemed non-responsive and incomplete and will not be accepted. NO EXCEPTIONS.

The Bidding Agency assumes no responsibility for conclusion or interpretations derived from the information presented in this RFB, or otherwise distributed or made available during this procurement process. In addition, the Bidding Agency will not be bound by or be responsible for any explanation, interpretation or conclusions of the RFB or any documents provided by the Bidding Agency other than those given in writing by the Bidding Agency through the issuance of addenda. In no event may a vendor rely on any oral statement by the Bidding Agency or its agents, advisors or consultants. It is the full responsibility of the vendor to thoroughly investigate the needs, requirements of the Bidding Agency not necessarily assumed in this RFB and to submit a bid

INSPECTION TRIPS

ONE MONTH SERVICE CALL

After the vehicle has been in service for approximately one month, the successful vendor shall send a trained "FACTORY" employed personnel to bidding agency, for a service and warranty review.

The Factory technician shall check all operation systems and repair or replace any items found defective or in need of re-work.

However should a problem occur before the one month service call, the bidding agency will require immediate service from the FACTORY technician, at the Department location. NO EXCEPTIONS.

Do you comply? Yes _____ No _____

WARRANTY

The proposal shall include all warranties that are required in the following detailed specifications. The minimum acceptable warranty periods are noted below. In the blank lines the bidder shall note the terms of the warranty that apply to the manufacturer being proposed. Each bidder will be required to submit their own warranty coverage's, simply checking and filling in the blanks below will not be tolerated and will be grounds for rejection.

Bidding Agency shall provide a minimum 12 month/12,000 mile Limited Warranty on the vehicle conversion, which covers defective parts and/or components, improper choice of materials, parts and/or components, improper design or engineering and poor or improper workmanship or quality control techniques. This warranty shall cover the complete vehicle, exclusive of the chassis, and shall include any and all costs for labor and parts or materials required to correct deficiencies. It is not the intent of this requirement that items such as light bulbs, or equipment installed in or on the vehicles which are covered by their own separate and specific warranty statements, be included in this warranty.

State the General warranty terms you are bidding:

Number of year's _____ Mileage _____

Since it is the purpose of these specifications to provide for a modular body that will offer many years of service, the Manufacturer of the vehicle(s) bid shall warranty the structural modular body for the life of the unit. This warranty shall be in writing and shall be included with the Bid Proposal. Bidders who fail to meet this requirement shall not be considered responsive.

State the Structural warranty terms you are bidding:

Number of year's _____ Mileage limitations (if applicable) _____

There shall be an electrical warranty provided on the ambulance conversion electrical system. The warranty shall cover all conversion circuit boards, harnesses, switches, circuit breakers, and relays. This county will not accept bids that have a Lifetime Electrical unless that entire electrical system is covered under the original ambulance manufacturer. Warranties that cover wiring harness only will not be acceptable and will cause the bidder's bid to be no-responsive and unacceptable to this bidding agency.

State the Electrical warranty terms you are bidding:

Number of year's _____ Mileage limitations _____

A seven (7) year paint warranty shall be provided on the paint and its application. A copy of the painter's warranty statement shall be included with this Bid Proposal. All warranties shall begin at the acceptance of the vehicle(s) by the Purchaser. NOTE: Manufacturers must be PPG Certified or show that their paint process is totally certified by the paint manufacturer's representatives.

State the Paint warranty terms you are bidding:

Number of year's _____ NO MILEAGE ACCEPTED YES ____ NO _____

For verification of the completed warranty terms stated above the bidder must include printed manufacturer's warranty certificates that meet or exceed the minimum required periods stated below.

Are the manufacturers warranties included? Yes _____ No _____

All warranties shall be from the manufacturer as opposed to a distributor or service center. This is necessary for the protection of the purchaser, and to guarantee a certain known level of service and warranty. If, however, the bidder feels that it is necessary to modify the manufacturer's warranties, then the bidder shall state why this modification is necessary. In addition, the bidder shall provide a full descriptive warranty certificate describing the warranty modification and the fact that it takes specific precedence over the warranty offered by the manufacturer. If no such certificate is provided, then the modified warranty shall be considered invalid and the manufacturer's warranty shall remain in force. If the manufacturer states that no party is permitted to modify its warranty, then any warranty modification provided by the bidder, despite being in writing, shall automatically be rejected.

Does the bidder conform to the above-written section? Yes _____ No _____

In order to simplify the evaluation process the following questions must be answered and this section must be initialed by the bidder.

Are the warranties pro-rated in any manner? Yes ____ No ____

If yes explain:

Are the warranties transferable? Yes ____ No ____

If yes explain:

Has the bidder modified the manufacturer's warranties? Yes ____ No ____

If yes explain:

If yes was chosen above, has the bidder included modified written warranties? Yes____ No ____
If no explain:

If 'yes' was chosen above, has the bidder included financial statements, for the last five (5) years, of the warranty modifier? Yes ____ No ____

If no explain:

Bidder shall initial that this section is understood and has been answered truthfully. Initials:_____

Note: Bidders, who are found to be untruthful in this, or in any other section of this bid, will have their bid automatically rejected.

PRODUCT LIABILITY INSURANCE

Proof of current liability insurance shall be supplied. The proof of insurance shall bear the insurance carrier's name, address and phone number. The proof shall also bear the name and address of the insured. This document shall contain the coverage schedule, explaining the type of insurance, the policy number, the effective date of coverage, the policy expiration date and the individual limits. The minimum amount of coverage shall be as follows.

Commercial General Liability - Aggregate policy limit of one million dollars.

Automotive Liability - Any Hired and Non owned Autos
Combined Single Limits of One million dollars.

Garage Liability - Any Auto
Auto only - Each accident: limit of one million dollars.

Workers Compensation and Employer's Liability –

Each Accident: limit of five hundred thousand dollars.
Disease policy: limit of five hundred thousand dollars.
Disease - Each Employee: limit of five hundred thousand dollars.

Excessive/Umbrella Liability –

Each Occurrence: limit of nine million dollars

Automotive Damage, Physical Liability Damage
Comprehensive Deductible:

Since these specifications describe an emergency vehicle that may be used under adverse conditions, this agency seeks to reduce its future liability exposure. Therefore, all bidders responding to these specifications shall submit a proper and verifiable Certificate of Insurance. This shall certify that the Manufacturer of the bid vehicle has in force, Product Liability insurance in the *minimum* amount of ten million dollars (\$10,000,000.00). This insurance shall have been issued by a Company rated "A+" as reported in the current edition of Best's Key Rating Guide, published by Alfred M. Best Company, Inc.

The amount of Product Liability must be adhered to by both manufacturer and dealer, who will be providing the bid. Utilizing the ambulance manufacturer's insurance will be acceptable if the bidder is an authorized dealer, they also must have coverage.

Bidders failing to submit proof of the above requirement cannot be accepted and their Bid Proposal will be rejected.

Does the bidder comply with this requirement? Yes ____ No ____

ANTI-COLLUSION STATEMENT

By signing this proposal, the offeror agrees that his bid is made without any understanding, agreement, or connection with any other person, firm or corporation making a bid for the same purpose and that his bid is in all respect fair and without collusion or fraud.

Company Name: _____

Offeror Signature: _____

Date Signed: _____

Offeror Complies Yes____No____

SERVICE FACILITY

Service will be a major factor in the award of this proposal. Convenience and experience will be determining factors in defining acceptable service. A service facility within a radius as described below will be required. Personnel performing the service shall be trained by the manufacturer with emphasis in the area of electrical service. In order to evaluate the propose service facility the following information shall be provided on the appropriate lines.

Radius from Purchaser: Not more than 75 miles.

Facility Name (If not the manufacturer): _____

Address: _____

City: _____ State: _____ Zip Code: _____

Contact: _____

Phone: Toll Free Preferably: _____

Training Description: _____

Bidders shall include with the Bid Proposal: literature, photographs or similar documents which describe or depict the manufacturer's type and model proposed; a complete set of the manufacturer's specifications for the type and model proposed; and one (1) set of drawings. These drawings shall consist of: four (4) exterior views; front, rear, curbside and street side and four (4) interior views; front, rear, curbside and street side, showing the location of all requested features attached thereto.

NOTE: the drawings submitted by the Bidder must show the design, layout, and features specified in this document. Submitting a manufacturer's "generic" or "standard feature" drawings, or photocopies of the reference drawings provided with this document, shall NOT be acceptable. Bidder's not including the required drawings will be considered non-responsive and will, therefore, be rejected.

Are the required drawings included with this bid? Yes ____ No ____

LICENSING REQUIREMENT

Bidder must be a registered and/or licensed automobile dealer within the state of the Georgia. This will insure the purchaser full protection under the laws governing the sale and service of automobiles within the purchaser's state. A copy of the dealer's license must be submitted with the bid.

Is a copy of the dealer's license included with this bid? Yes ____ No ____

The *bidder shall utilize these specifications and return their proposal in the same format as the specifications* are provided. Failure to submit the bid specifications in alternate format will be grounds for rejection. NO EXCEPTIONS.

Are your specifications in the same format? Yes ____ No ____

CURB WEIGHT

The curb weight is the total weight of the complete ambulance and is defined as the chassis, cab, body, and minimum required equipment as required by KKK-A-1822F, and includes a full complement of fuel, lubricants and coolant shall meet Federal Requirements.

Does the bidder comply with this requirement? Yes ____ No ____

PAYLOAD ALLOWANCE

A minimum of 1,750 pounds will be allowed over and above the curb weight for personnel, patient, and miscellaneous support equipment

Does the bidder comply with this requirement? Yes ____ No ____

INTERIOR HEADROOM

There shall be 72" inch of interior headroom provided inside the patient area of the module. It shall be free of obstructions for the occupant's safety and shall meet or exceed all transportation and regulatory requirements.

TECHNICAL REQUIREMENTS CAB/CHASSIS

The ambulance shall be a Type I, Class I, and shall have a chassis furnished with two-door cab/chassis, 4x2. The cab/chassis shall be suitable for subsequent mounting of a modular (containerized) transferable equipped ambulance body conforming to the requirements specified herein.

Does the bidder comply with this requirement? Yes ____ No ____

STAR-OF-LIFE CERTIFIED AMBULANCE

The Emergency Medical Vehicle described in this specification is designed to meet or exceed the requirements of Ford Motor Company QVM Program, Federal Ambulance Specification KKK-A-1822 Revision F, and AMD Standards 001-009.

NOTE: Throughout the written Federal Ambulance Specification KKK-A-1822, there are frequent references to item to be included WHEN SPECIFIED item, but such items may not be included in the attached specifications.

INSTRUCTIONS TO OFFERORS

The Specifications calls for the following type of vehicle. It is in accordance with paragraph 1.2.1 of KKK-A-1822F.

Type I: Specialty (cab/chassis) with integral or containerized modular body.

Class 1: Two wheel driven (4x2)

Configuration B: Elevating cot and squad bench for ALS (see 3.1.5.1/3.15.3 of KKK-A-1822F).

The emergency medical care vehicle, chassis, ambulance body, equipment, devices, medical accessories, and electronic equipment to be delivered under this contract shall be standard commercial products that meet or exceed the requirements of these specifications. The ambulance shall comply with all Federal Motor Vehicle Safety Standards (FMVSS) and Federal regulations applicable or specified for the year of the manufacture. The chassis, components, and optional items shall be represented in the manufacturer's current technical data. Materials used in the construction shall be new and not less than the quality conforming to current engineering and manufacturing practices. Materials shall be free of defects and shall be suitable for the intended use.

SECTION 1.0 – CHASSIS AND COMPONENTS

O.E.M.: The acronym O.E.M. is Original Equipment Manufacturer. The O.E.M. is the chassis manufacturer and the vehicles Make Origin.

CHASSIS MAKE: The apparatus shall be mounted on a commercially available cab and chassis manufactured by Ford Motor Company. The chassis manufacturer shall be the

vehicle's point of origin. The chassis shall be supplied by Ford as an incomplete vehicle to the successful ambulance manufacturer. The chassis supplied shall conform to all applicable Federal Motor Vehicle Safety Standards in force at time of manufacture. A statement of conformity shall be supplied with the chassis in an "Incomplete Vehicle Manual".

CHASSIS MODEL: The ambulance module shall be mounted on a 2016 Ford F350 (4x2) Cab/Chassis, 165 inch wheel base, dual rear wheel, (4x2) XLT chassis equipped as follows below.

WHEEL BASE: The wheel base shall be 165 inches with a cab to axle of 84 inches. The wheel base shall be factory supplied by the O.E.M. Modified wheel bases made from chassis with shorter or longer wheel bases in not acceptable.

ENGINE: A 6.7L Turbo Diesel engine shall be provided. The engine performance shall comply with or exceed the most current revision of KKK-A-1822F.

ENGINE BLOCK HEATER: A 750 Watt 125 volt AC Engine Block Heater package shall be included on the chassis. After-market systems will not be acceptable.

TRANSMISSION: A 6-speed, automatic with overdrive transmission shall be provided

GROSS VEHICLE WEIGHT RATING (GVWR): The GVWR of the chassis supplied shall be at least 13,000 pounds.

FRONT AXLE WEIGHT RATING (FAWR): The FAWR shall be rated at no less than 5,000 pounds.

REAR AXLE WEIGHT RATING (RAWR): The RAWR shall be rated no less than 7,000 pounds.

TURNING DIAMETER: The proposed vehicle(s) turning diameter shall not exceed twenty four feet and 3 inches measured from one curb to another parallel curb.

CAB INTERIOR COLOR: The color of the cab interior shall be gray. All conversion manufacturer's added consoles and device shall be pleasing in color with the interior color provided by the O.E.M.

REAR SUSPENSION – SPRINGS: The unmodified O.E.M. springs shall be supplied The springs shall be single stage, constant rate leaf type with a combined 12,000 pound rating, measured at the ground.

CAB SEATS: O.E.M. high back, velour covered bucket type seats shall be provided in the cab. The seats adjust forward and aft as well as recline. Seat base must be O.E.M., per Ford QVM guidelines.

OCCUPANT RESTRAINT SYSTEM: The front, forward facing cab seats shall be equipped with O.E.M. installed three point seat belts. The seat belts shall have pre tensioners built in to the seatbelt assembly to take up belt slack during a violent frontal collision. The seat belts assemblies shall meet or exceed F.M.V.S.S. 208 and 209. The inside conversion panels shall not interfere with the swivel arc of the shoulder ring.

SUPPLEMENTAL RESTRAINT SYSTEM: An O.E.M. air bag shall be installed on the driver and passenger side.

TRIM PACKAGE: XLT trim package shall be supplied from the O.E.M. The package shall include high quality chrome like bright work on the grille face. Chrome plated steel bumper(s) shall also be supplied by the O.E.M. Argent or painted bumpers are not acceptable. The O.E.M. grill work shall remain the same O.E.M. After market vacuum formed, proprietary grille work made by the ambulance manufacturer is not acceptable due to replacement part cost and lack of immediate availability.

CAB FLOOR COVERING: The cab floor shall be covered with an O.E.M. black rubber mat.

BRAKES: 4-Wheel anti-lock, power assisted hydraulic brakes shall be supplied by the O.E.M. The brakes shall be 4-wheel Disc type with Dual piston calipers and front and rear vented discs.

TILT STEERING WHEEL: The steering wheel shall be tilt adjustable. An easy to operate, column mounted pull to adjust lever shall lock the steering wheel angle position.

SPEED CONTROL: Ford Speed Control option Code 525 shall be ordered on the chassis.

INTERIOR UPGRADE PACKET: Ford Option Code 18C, interior upgrade package shall be ordered and supplied on the chassis.

This package shall include:

Cloth Headliner

High trim door panels

Ford option code 21 A high back bucket seats.

Cloth sun visors

Front Rubber Floor matting

Power Door locks

Power Windows

Insulation package.

DOOR LOCKS: The chassis shall have O.E.M. power door locks. There shall be a remote O.E.M. key fob included with the package.

DAYTIME RUNNING LIGHTS: Daytime running lights option No 942 shall be supplied and installed by the O.E.M. Both headlights shall come on with the ignition switch.

WHEEL/RIM APPEARANCE: All four outside chassis wheels shall be covered in polished stainless steel wheel simulators. The wheel simulator design shall not affect tire and wheel balance when the vehicle is driven between zero and eighty miles per hour. The lugs shall be capped off with bright stainless steel, snap on caps designed to cover wrench marks, normally left on the lug nuts.

SHOCK ABSORBERS: The chassis shall be equipped with one shock absorber for each side of each axle. An O.E.M. selected one and three eighths (1-3/8") inch gas type shock shall control vehicle spring oscillation and dampen road related jounce and harshness. Ambulance related shields, floor members or other devices shall not interfere with shock replacement.

FUEL TANK: The fuel capacity shall be at least 40 US gallons. The fuel range shall be at least 250 miles per current KKK-A-12822F.

REAR AXLE TYPE AND RATIO: The axle type shall be a Limited Slip Differential with a 4.10:1 gear ratio.

SPARE TIRE STOWARD LOCATION: The spare tire and wheel assembly will not be carried on the units. The spare tire and the related tools, supplied by the O.E.M., shall be shipped loose with the completed vehicle.

TIRES: All tires shall be identical make, thread type, size and load range. The tires shall be LT225/70SR19.5 BSW AS front and rear (Includes Spare).

TIRE VALVE EXTENDERS: One pair of tire valve extenders shall be supplied and installed for each inside rear wheel. The tire valve extenders shall permit the user to check tire pressure and fill the inside rear tires without removing the outer tire. The extenders shall have a braided stainless steel outer jacket to resist abrasions and cuts. The filler end shall be supported by a valve bracket.

AMBULANCE PREPARATION PACKAGE: The chassis provided shall be equipped with an 47A ambulance preparations package designed and installed by O.E.M. The package shall be designed to hold up to the demands and duty cycles inherent with Emergency Medical Vehicles.

ALTERNATOR – CHARGING SYSTEM: Ford's option No 67A.

THROTTLE HIGH IDLE: The O.E.M. high idle shall be installed by Ford.

CAB STEREO: An O.E.M. AM/FM/CD in dash radio and two cab door speakers shall be included with the chassis.

SIDE REAR VIEW MIRRORS: Dual O.E.M. Mirrors with power adjusted mirror glass and manually telescoping mirror heads shall be mounted to the forward, lower corner of the cab door window. Both mirrors shall feature a bi-directional break-away function to permit folding the mirror heads against body in close quarters. The mirrors shall be seven inches wide by eight inches high and flat on both right and left sides. Additionally convex mirrors shall be provided below each flat glass area on both sides to minimize blind spots.

SLIDING REAR WINDOW CHASSIS: There will be a sliding glass window in the rear cab area. This will be OEM provided.

CHASSIS WARRANTY

The chassis manufacturer's standard vehicle warranty polices shall apply.

BASIC	36 month / 36,000 miles
Corrosion Perforation	60 month/unlimited mileage
Diesel Engine	60 month / 100,000 miles
Power Train	60 month / 100,000 miles
Roadside Assistance	60 month / 100,000 miles

RUNNING BOARDS

The running boards shall be finished with bright aluminum diamond plate, as required, and include nonmetallic spacers to prevent trapping of dirt and water between the running boards and the body cab.

All running boards shall be gusseted and provide brackets to prevent flexing, sagging and damage.

Design of the running boards shall incorporate a splash shield to protect the front of the modular body from the wheel wash.

Running boards shall be reinforced and braced to handle a minimum of 250 pounds without flexing. Running board installation to conform to chassis manufacturer's recommendation.

Above section bid exactly as written: Yes ____ No ____

SIREN SPEAKERS

There shall be provided two (2) 100 watt electronic speakers. The speakers shall be recessed into the front bumper.

Above section bid exactly as written: Yes ____ No ____

EXHAUST SYSTEM

The exhaust system shall conform to the chassis manufacturer's requirements.

Above section bid exactly as written: Yes ____ No ____

SPLASH GUARDS / MUD FLAPS

There shall be provided a set of splash guards installed in the front wheel wells of the cab. The splash guards shall be constructed of aluminum and shall be securely fastened to the inside of the wheel well.

Additionally, there shall be provided a set of heavy duty rear mud flaps. The flaps shall be made of thick rubber material and shall be as wide as the dual rear wheels.

The mud flaps shall be securely fastened to the module body using stainless steel fasteners.

There shall be no company logo printed on the mud flaps what so ever.

ENGINE BLOCK HEATER

There shall be a engine block heater wired to the shoreline. In addition there will be switch outlet in the driver's cab to allow the attendant to turn it On/Off.

Switch to be located behind the driver cab seat.

NOTE: The switch will be lighted.

Above section bid exactly as written: Yes ____ No ____

HEAT SHIELD

To further insulate and protect the patient compartment the ambulance manufacturer shall install 18 gauge galvanized steel below the subfloor material to act as a heat shield. An 18 gauge galvanized steel sheet, with waterproof insulation laminated to it, shall be installed directly to the bottom of the floor tubes. This will create a sandwich style construction to further insulate the patient floor in the area of the muffler and exhaust.

Above section bid exactly as written: Yes ____ No ____

SECTION 2.0 - MODULE CONVERSION

BODY CONSTRUCTION OVERVIEW

The dimensions of the patient module shall be in accordance with manufacturer's specifications with **minimum** dimensions of 149" in length, 96" in width, and 72" headroom.

There shall be a bulkhead separating the cab and patient compartment that allows for a pass through area.

The ambulance body shall be constructed of custom designed aluminum extrusions and aluminum plate. The ambulance body shall be designed and engineered specifically as an emergency vehicle and shall be built to meet the heavy duty requirements of emergency service.

The body shall be of welded construction for maximum strength and integrity for the entire life of the ambulance. The aluminum extrusions shall be custom designed structural shapes that are an alloy of 6061 and heated to a temper of T6 hardness.

The aluminum shapes shall be designed with a force fit interlocking system that shall eliminate any vibration to the welded structural members. The interior structural members, sides and roof shall be spaced a minimum of 14 inches on center. The floor structure shall be a minimum 14 inches on center. The floor, roof and sides shall be of a cage-type construction that is built to form an independent structure.

The exterior walls shall be constructed of a minimum of .125 inch thick aluminum plate 3003 alloy with a heat treated plate that is stretch leveled to a tolerance of +/- 0.003 inches. The exterior walls shall interlock into place.

All exterior compartments shall be separate and individual components and no two compartments shall share a common wall.

Above section bid exactly as written: Yes ____ No ____

BODY TO CHASSIS MOUNTING Ford OEM 2" high "High Hat" laterals with 2" x 2" x 4" x 3/16" thick structural steel angle welded to each end are attached laterally to the chassis on Ford OEM rubber body mounting bushings.

The frame spacers are to be supported by outriggers made of 5" x 5" x 5" x 3/8" thick steel angles which are bolted to the outer side of the chassis frame rails with three (3) 1/2" Grade 5 bolts each. Additionally, steel surfaces that will come into contact with aluminum floor structure components are to be covered with PVC tape to prevent contact between the dissimilar metals.

The floor structure is to be bolted in place with not less than ten (10) 1/2" Grade 5 T-head bolts through holes in the 2" x 2" aluminum longitudinal floor framing members and steel angle brackets welded to the ends of steel lateral frame spacers. This design allows the body to be removed and remounted without disturbing the finish floor in the interior patient compartment.

Above section bid exactly as written: Yes ____ No ____

VEHICLE LOWER RUB RAIL

The lower rub rail shall be of a polished aluminum "C" channel that is 2" wide x 3" high. The "C" channel shall have a recessed section that will have reflective red/white striping applied. The extruded rub rails shall be installed on lower sides of the modular body using stainless steel fasteners and rubber spacers between the rail and body.

Since "C" Channel is readily available to all manufacturers there shall not be an exception to this section. The safety in adding the reflective striping along with the ease or replacement is the preferred and acceptable method.

Above section bid exactly as written: Yes ____ No ____

ROOF RADIUS

The roof radius shall be an extruded aluminum shape with an alloy and temper of 6061-T6 with an ultimate strength of 42,000 PSI.

The shape shall be a four inch radius with a built-in inner structural connector to form a one piece side and roof structure.

The roof radius shall incorporate a built-in drip molding to aid in the channeling of water.

Above section bid exactly as written: Yes ____ No ____

ROOF CONSTRUCTION

The roof shall be constructed of 0.125" thick aluminum plate. The roof structure shall consist of 2" x 3" 6063-T5 aluminum tubing that shall span the full width of the body and have a bow effect to facilitate water runoff from the roof.

Roof structure that is less than 0.125" thick will not be accepted.

The roof tubes shall be welded to the roof and to the inner structural connector of the radius. The aluminum plate sheet roof shall be completely welded to the roof radii.

Above section bid exactly as written: Yes ____ No ____

CORNER RADIUS

The corner radius shall be of the same heavy duty construction as the roof radius, except there shall be a built-in drip molding. The corner radius shall be a three inch radius.

All corners shall be a semi-hollow shape for structural strength and shall give a smooth exterior appearance without the need for bending or forming sheet metal.

Above section bid exactly as written: Yes ____ No ____

SIDE STRUCTURE

The sides shall be constructed with four corner radii. The radii shall be a three inch arc shape with interlocking edges on both sides. The extrusions shall be of an alloy of 6061 with a heat treated temper of T6.

The corner and roof shall be designed to work as a system that has a double gusset connector in each corner joint.

THE ROOF, CORNER AND SIDES SHALL BE WELDED SO AS NO BOLTS OR RIVETS ARE REQUIRED OR PERMITTED.

The sides shall be of a 'jig-locked' style construction. The jig shall hold the corners and body side panels in place while an inner 6063-T5 structure is welded into place. The members shall be located 14 inches on center and welded to the roof rail and inner structure connector that shall be the roof members.

The exterior aluminum panels .125" shall interlock with the roof, corner and specially designed extruded aluminum compartment door frames and shall be constructed of a 6063-T5 material. The door frame extrusion shall be designed to match fit the exterior compartment doors. The frame shall be a full ¼" thick to allow for taping for door hinges.

The door frame shall have an exterior trim edge that shall channel any water away from the compartment openings.

Above section bid exactly as written: Yes ____ No ____

FLOOR STRUCTURE

The floor structure shall consist of 2" x 3" x 0.125" structural 6063-T5 aluminum tubing. The tubing shall be located on 12 inch centers.

These tubes shall extend the full width of the body between compartment boxes. The floor tubes shall be completely welded to the side structure channels.

Above section bid exactly as written: Yes ____ No ____

VAPOR BARRIER

To further insulate and protect the patient compartment the ambulance manufacturer shall install an aluminum vapor barrier. A 0.63 aluminum sheet shall be installed directly between the flooring and the 2" x 2" floor tubes. This will create a sandwich style construction to further insulate the patient floor in the area of the muffler and exhaust system.

The entire underside of the modular body shall be sealed.

Above section bid exactly as written: Yes ____ No ____

CORNER GUARDS

The lower rear corners of the body shall have approximately 12"-1/2" high, .0125 aluminum diamond plate rolled around the corners radius and terminate at the rear kick plate area. These stone guards shall be fastened to the body with .50" – 10 TX-25 screws. The top edge of each stone guard shall be sealed to prevent moisture and debris from collecting behind the guards

Above section bid exactly as written: Yes ____ No ____

COMPARTMENT CONSTRUCTION

All exterior compartments shall be constructed of 0.125" smooth aluminum plate. All corners and seams shall be completely welded to prevent outside elements from entering the compartment.

Each compartment shall be finished with a "scorpion liner" type material. NO EXCEPTIONS.

Zolatone spray will not be allowed due to it being so easy to rub away.

Additionally, each compartment shall be vented with a four inch aluminum vent.

Above section bid exactly as written: Yes ____ No ____

DOOR CONSTRUCTION

All door edges and frames shall be constructed of a specially designed extruded aluminum shape of 6063-T5 alloy and temper. All door frames shall be welded to the exterior sheets and to the side structure channels.

The exterior sheets shall fit into the door frame and shall be welded to the frame from the inside of the door body. The door edges shall all be welded together and then welded to the outer panels.

Exterior door panels shall be 0.125" thick 5052-H32 aluminum plate with an ultimate strength of 38,000 PSI. The panel shall fit into the door edge extrusion and shall be welded to the extrusion from the inside of the door.

The entry door inner liner shall be constructed of 0.100" aluminum plate sheets with reflective chevron striping. The liners shall be fastened to the door extrusions with stainless steel screws. The liner shall be removable for access to the latching mechanism. Inner door panels that are one piece will not be acceptable. The lower aluminum panel shall be covered with Red/Yellow Reflective striping. **NO EXCEPTIONS.**

Above section bid exactly as written: Yes ____ No ____

DRIP RAIL

Every compartment door opening shall have a polished aluminum drip rail.

EBERHARD LOCKING PULL HANDLES LATCHES

There shall be provided locking grabber latches on each exterior door. The door handle shall be bolted into place to allow for easy repair or replacement if damaged. The latches shall be controlled with connecting rods.

NO CABLES SHALL BE NEEDED OR SUPPLIED.

The handles shall be chrome Eberhard "EASY GRABBER SERIES 2100" grabber with large, easy to use handles. Bidders offering other than these style door handles will not be acceptable. These handles are available to all manufacturers.

Above section bid exactly as written: Yes ____ No ____

STAINLESS STEEL DOOR HINGES

There shall be provided a stainless steel continuous hinge on each of the exterior doors. The hinges shall extend the full length of the door and shall contain a minimum ¼" stainless steel pin.

All hinges shall be bolted to the door and door frame using ¼" stainless steel bolts for easy removal if damaged. The hinge shall be separated from the door and frame by a Mylar strip which shall act as a corrosion barrier.

Above section bid exactly as written: Yes ____ No ____

DOOR SPRING HOLD BACKS

There shall be provided a door spring opener and closer on each exterior compartment and side entry door. The door spring shall be bolted to the door using a fabricated spring hold bracket.

The door spring hold back shall operate on a '50/50 principal': if the door is partially opened, it shall close or if the door is over halfway open, the door will open fully.

Manufacturer's that offer gas style hold openers will not be accepted. Due to the failure rate of gas holders. NO EXCEPTIONS.

Above section bid exactly as written: Yes ____ No ____

CAST DOOR GRABBERS

There shall be provided two (2) cast door grabbers installed on the rear entry doors. The cast grabbers shall consist of two parts: a loop and receiver.

The loop shall be installed on the upper portion of the rear entry door. The corresponding receiver shall be installed on the rear wall.

When the rear doors are opened, the door grabbers shall securely hold the doors open.

Above section bid exactly as written: Yes ____ No ____

MODULE, FLOOR AND ENTRY DOOR INSULATION

The ambulance flooring system shall be insulated with 3" thick expanded Polystyrene Fiber insulation. The poly fiber shall be cut to closely fit the spaces between the structural framing and shall be attached to the underside of the floor skin with a spray adhesive suitable for use on EPS insulation.

After the insulation is in place, an aluminum weather shield (.060" aluminum) cover is to be bonded to the entire bottom side of the floor framing to protect the insulation from road splash.

To enhance the insulation, all exterior inner compartments will be wrapped in an Aluminum Reflectix Material, this is to include the wheel wells also.

In addition to the Poly Fiber inside the module, ALL Exterior Compartment Doors, including Side and Rear Entry Doors shall be insulated with the Poly Fiber.

The insulation must meet ASTM E84 20/30 guidelines for flame and smoke.

Photos of this type insulation will be required. NO EXCEPTIONS.

Above section bid exactly as written: Yes ____ No ____

FENDER FLARES

A polished aluminum fender flair shall be installed around the rear wheelwell openings. They will be installed so as not to interfere with tire rotation, movement, or replacement. A layer of butyl self sealing tape will be applied between the fender flares and the body panels for corrosion protection.

Above section bid exactly as written: Yes ____ No ____

FUEL FILL BEZEL

The fuel tank fill will be protected by a cast aluminum fuel fill guard with polished flanges.

There will also be a second fuel fill with bezel located ahead of the street side rear wheels and labeled, "UREA". It shall have the Cast Aluminum fuel fill guard with polished flanges.

Above section bid exactly as written: Yes ____ No ____

FUEL FILL SPLASH GUARD, BRUSHED ALUMINIM

The fuel tank fill will be protected by an aluminum fuel fill guard with polished flanges. Both Diesel and Urea.

Above section bid exactly as written: Yes ____ No ____

REAR BUMPER

The rear bumper sub-structure must be constructed from 1-1/2" x 3" steel channels and 10 gauge steel plate. The components must be fully welded and coated with automotive water based undercoating to prevent rust, and then bolted to the OEM frame rails.

Aluminum diamond plate bumper pods, approximately 23" wide x 11" deep x 4" high shall be constructed to fit over the outboard ends of the sub-structure and must be bolted in place using stainless steel fasteners.

The middle portion of the bumper assembly (approximately 48" wide) shall incorporate a fold up section of aluminum grip strut material. The hinge must be stainless steel and installed so that the step folds toward the body to facilitate stretcher loading. NOTE: The bottom must be closed off on the flip up section, leaving sides open for drainage.

The rear bumper shall meet the requirements set forth in the AMD Standard 018-Rear Step and Bumper Test. The bumper shall be able to accommodate a 500 lb. load with maximum deflection of 1-inch and no more than ¼-inch permanent deformation.

Above section bid exactly as written: Yes ____ No ____

CAB TO PATIENT COMPARTMENT PASS-THRU

A 17" wide x 17" high pass-through opening with a hinged plexiglas window shall be framed into the front wall. It shall have a head bumper for occupant safety and shall coincide with an opening of equal size framed into the back wall of the chassis-cab. The space between the cab and module shall be sealed by the installation of a flexible rubber "accordion" style enclosure. Inflatable or rigid seals shall not be acceptable.

Above section bid exactly as written: Yes ____ No ____

EXTERIOR COMPARTMENTS

DRIVER'S SIDE

COMPARTMENT "L-1"

This compartment shall be located on the forward driver's side of the ambulance body. The compartment floor shall be of a 'sweep out' style.

The compartment shall be designed to house an oxygen cylinder and shall contain an approved oxygen cylinder retention system. There shall be proved access to this compartment from within the patient compartment.

The compartment shall have a single, vertically hinged door with a "scorpion" style interior surface and a LED strip compartment light that activates upon opening of the compartment door.

One (1) Vertical Aluminum divider covered in Scorpion Spray liner.

Exterior Door shall have stamped louvered vents in the door. Add on vents will not be acceptable. NO EXCEPTIONS.

Above section bid exactly as written: Yes ____ No ____

COMPARTMENT "L-2"

This compartment shall be located aft of compartment "A". The compartment floor shall be of a 'sweep out' style.

There shall be one (1) adjustable shelf provided.

This compartment shall have single vertically hinged doors with a "scorpion" style interior surface and a LED strip compartment light that activates upon opening of the compartment door.

Above section bid exactly as written: Yes ____ No ____

REAR WHEEL EXTERIOR PULL OUT DRAWER STREETSIDE

There will be a pull-out drawer located above the street side rear wheels. The drawer shall have a Eberhard 2100 Series Door handle.

COMPARTMENT "L-4"

This compartment shall be located aft the rear wheel well of the apparatus. The compartment floor shall be of a 'sweep out' style.

The compartment shall have dual vertically hinged doors with “scorpion” style interior surface and LED strip compartment light that activates upon opening of the compartment door.

In addition there shall be one (1) adjustable shelf in the compartment.

Above section bid exactly as written: Yes ____ No ____

PASSENGERS SIDE
COMPARTMENT “R-1”

This compartment shall be located on the forward passenger’s side of the ambulance body. The compartment shall be 74” High x 22” Wide x Full Depth (ALS). The entire compartment shall be open from the inside and the outside. Additionally there shall be provided access to this compartment from within the patient compartment.

The compartment shall have two each adjustable shelves “aluminum”, on uni-strut tracks.

The compartment shall have a single, vertically hinged door with an interior LED strip compartment light that activates upon opening of the compartment door.

Above section bid exactly as written: Yes ____ No ____

PASSENGER SIDE
COMPARTMENT “R-1.5”

This compartment shall be for additional storage and separate from the upper “D” Compartment

Compartment will not have the batteries installed.

Above section bid exactly as written: Yes ____ No ____

PASSENGER SIDE
COMPARTMENT “R-3”

This compartment shall be located aft the rear wheels.

This compartment shall have a single vertically vented hinged door with a “scorpion” style interior surface and a LED strip compartment light that activates upon opening of the compartment door.

Above section bid exactly as written: Yes ____ No ____

PASSENGER SIDE
COMPARTMENT “R-4”

This compartment shall be the rearmost compartment and shall match be 74” High x 22” Wide x 22” Deep.

The compartment shall have a single vertically vented hinged door with “scorpion” style interior surface. The compartment shall contain a LED strip compartment light that activates upon opening of the compartment door.

In addition there shall be two (2) adjustable aluminum shelves and one (1) vertical divider. All shelves and dividers shall be scorpion lined.

All exterior patient compartment doors shall be keyed alike.

Above section bid exactly as written: Yes ____ No ____

DOOR LATCHING HARDWARE

All module doors, compartment and entry, shall utilize two (2) rotary style latches per door leaf, closing onto two (2) "Nader" striker pins with capped heads and adjustable cage nuts. Construction using other latching methods, striker pins without capped ends, or single striker pins are NOT acceptable.

Above section bid exactly as written: Yes ____ No ____

COMPARTMENT DOOR HANDLES

All exterior compartment doors shall have a chrome plated Eberhard Model # 21000 "E Grabber Series", locking handle with neoprene gasket. There shall be 2-pt locking pull handle assembly made out of die cast material. The handle shall be large and easy enough to use. The assembly shall include a double-bitted key cylinder in locking versions, factory installed gasket and free-wheeling feature, water resistant, and blind mounting brackets for security and appearance. The handle will be connected to the latching mechanism by threaded rods. Latching systems using cables or pinned rods will NOT be acceptable.

Since these door handles are readily available to all manufacturer's there will be no exceptions to this section.

Above section bid exactly as written: Yes ____ No ____

COMPARTMENT DOOR PUNCHED LOUVER(S)

One (1) exterior compartment door(s) shall be provided with machine stamped louvers in the exterior skin and the interior diamond plate liner. The punched door louver shall be located on the street side forward compartment. Add on style louvers will not be acceptable and your bid will be deemed non-responsive and will be ground for rejection.

Above section bid exactly as written: Yes ____ No ____

SIDE ENTRY DOOR

A side entry door to the patient compartment shall be provided, sized and located as shown in the attached prints. It shall have a full length stainless steel hinge, with pin not less than 1/4" in diameter, on the forward edge of the door and a stainless steel spring controlled door check which will hold the door at not less than 90 degrees when open.

Above section bid exactly as written: Yes ____ No ____

CURBSIDE ENTRY DOOR HANDLES

The curbside module entry door shall have a chrome plated Eberhard locking handle with neoprene gasket on the exterior of each door. On the interior of this door, a Tri-Mark automotive lever style handle with slide lock lever and black plastic bezel will be installed.

These handles will be connected to the rotary latching mechanism by steel rods with an anti-corrosion coating factory applied. Latching systems using cables or pinned rods for latch activation will NOT be acceptable.

Above section bid exactly as written: Yes ____ No ____

REAR ENTRY DOORS

Double leaf rear entry doors to the patient compartment shall be provided, sized and located as shown in the attached prints. They shall have a full length stainless steel hinges with pins not less than 1/4" in diameter.

Above section bid exactly as written: Yes ____ No ____

One (1) pair of Cast Products "Grabber" door hold open devices shall be installed on the exterior of the doors to hold them open when necessary. The devices shall be located at the bottom of the rear doors. The rubber insert into the "female" side of the hold open device shall be replaceable. They shall be fastened to the door and doorframe with self-locking stainless steel screws. NO EXCEPTIONS WILL BE ALLOWED.

Above section bid exactly as written: Yes ____ No ____

REAR ENTRY DOOR HANDLES

Each rear module entry door shall have a chrome plated Eberhard locking handle with neoprene gasket on the exterior of each door. On the interior of each door, a Tri-Mark automotive lever style handle with slide lock lever and black plastic bezel will be installed.

These handles will be connected to the rotary latching mechanism by steel rods with an anti-corrosion coating factory applied. Latching systems using cables or pinned rods for latch activation will NOT be acceptable.

Above section bid exactly as written: Yes ____ No ____

ENTRY DOOR GRAB BARS

A 1.25" diameter stainless steel grab bar with 120 degree "V"-style bend shall be provided and installed on the inside of each entry door.

Above section bid exactly as written: Yes ____ No ____

ENTRY DOOR FINISHES and COMPONENTS

ENTRY DOOR UPPER LINERS

Above the kick plate, the entry doors shall be finished using vinyl wrapped and 1/8" aluminum panel. The vinyl shall match the seating color selection and the padding shall be approximately 1/4" thick. The upper liner shall be secured to the inside of the entry doors using stainless steel screws.

CENTER DOOR LINER

An aluminum plate covered in matching formica shall be utilized and attached to each entry door. The cover shall be secured to the inside of the center of each entry door with stainless

steel screws and a "J" channel slot so that it allows easy removal to access the door latching mechanism.

ENTRY DOOR KICK PLATES

A piece of .063" smooth aluminum plate will be installed on the lower inside portion of each door to serve as a kick panel. The kick plates will be attached to the door pan and liner using stainless steel screws. The kick plate shall be covered in Reflective Red/Yellow Chevron's.

Above section bid exactly as written: Yes ____ No ____

STAINLESS STEEL DOOR SILL PROTECTION

There shall be a 22 ga. Formed stainless steel compartment doorsill protection for all exterior compartments. The stainless protector shall be affixed with heavy duty double side tape to the top surface of the doorsills and extend over the radius edge.

Above section bid exactly as written: Yes ____ No ____

SIDE ENTRY DOOR WINDOW

A 18" x 24" black aluminum FIXED framed window is to be centered in the entry door, with the top of the window about 6" down from the top of the door. The dark tinted window shall be capable of opening via a sliding section of the glass. The sliding section must be positively latched when in the closed position to prevent it from being opened from the outside. It must also include a sliding screen section to cover the opening.

IMPORTANT: The size window indicated is a requirement with NO EXCEPTIONS. This will allow the medic to keep seated in a seat belted position and still be able to see outside of the patient compartment.

Above section bid exactly as written: Yes ____ No ____

ENTRY DOOR WINDOW

Two (2) 14" wide x 24" high black FIXED aluminum framed window is to be centered in the entry door, with the top of the window about 6" down from the top of the door. The dark tinted window shall be single piece fixed glass.

IMPORTANT: The size window indicated is a requirement with NO EXCEPTIONS. This will allow the medic to keep seated in a seat belted position and still be able to see outside of the patient compartment.

Above section bid exactly as written: Yes ____ No ____

SECTION 3.0 - PATIENT COMPARTMENT INTERIOR MODULE

INTERIOR CABINETRY

CONSTRUCTION REQUIREMENTS In general, the interior of this ambulance shall incorporate features to mitigate injuries to passengers caused by sudden hard braking or accident impact. Exposed edges shall be protected by radius or chamfer trim and, where possible, corners shall be rounded with radius trim. All devices and equipment will be mounted as flush as possible

with its surrounding surface. Padding shall be installed in areas where features may obstruct head movement as attendants work within the patient compartment.

The layout of interior cabinetry for this ambulance shall be as indicated in the enclosed drawings. Variation from this design may not serve the needs and requirements of this agency and may be cause for rejection of the bid. As stated earlier in this document, the bidder must supply drawings which will be considered when determining whether a particular design meets those needs.

The cabinets in this vehicle shall be constructed of 3/4" cabinet grade plywood which has been covered by a commercial grade high pressure plastic laminate prior to its use in fabricating the cabinetry. Plastic, fiberglass, or composite wood will not be acceptable for use in the cabinetry structure.

All cabinets will be fastened together by the use of aluminum angles set into the inside corners and fastened with wood screws. Construction that glues the components together and uses wood screws driven into the edge of the plywood is NOT acceptable due to the reduced holding capability of screws driven into the veneered edge. Additionally, cabinetry shall be firmly bolted to mounting plates welded to the body side structure.

All cabinet trim, 'head-knocker' pads and various other trim pieces shall be covered in color coordinated vinyl upholstery.

Additionally there shall be provided full dry eraser board material on the interior side walls.

Above section bid exactly as written: Yes ____ No ____

INTERIOR PATIENT COMPARTMENT COMPONENTS

Patient Compartment Sound Levels: The vehicle shall provide an interior working environment in which the ambient noise level is less than 80 dB as measured according to AMD Standard 006, Sound Level Test Code for Ambulance Compartment Interiors.

Patient Compartment Carbon Monoxide Levels: The vehicle shall provide an interior working environment in which the carbon monoxide level is less than 10 ppm as measured in accordance with AMD Standard 007, Carbon Monoxide Levels for Ambulance Compartment Interiors.

Above section bid exactly as written: Yes ____ No ____

CABINET DOORS

All cabinets along the street and curb side of the vehicle shall have a mitered framed, sliding transparent Plexiglas door assembly. Each door shall be fitted with a full length, extruded aluminum door handle. The door pull extrusion shall also add bend resistance to the door. The door track/frame extrusion shall incorporate a rubber track to prevent the door from sliding free during transit. Additionally the corners of the assembly shall have supporting corner angle. All extrusions shall be anodized.

Color shall be Clear.

Above section bid exactly as written: Yes ____ No ____

INTERIOR SHELVING

All shelving in the interior module shall be aluminum and painted white with a black rubber edge. The shelving shall have adjustable struts that are bolted in and not screwed. No wood is desired or will be acceptable. NO EXCEPTIONS.

Above section bid exactly as written: Yes ____ No ____

CABINET LATCHES

Stainless Steel Round Southco locking latches shall be provided on each door where applicable.

Above section bid exactly as written: Yes ____ No ____

ALS CABINET

The ALS cabinet shall be laid out to match the department's current units.

The Upper cabinet area shall have two Plexiglas insert hinged doors. Inside/Outside

There shall be one (1) Southco Chrome Non-Locking Latch.

Center Section shall have a Sliding Drawer 8 inches height and inside access only. The drawer shall have a Southco Chrome Locking latch.

The lower cabinet area shall have two Plexiglas insert hinged doors. Inside/Outside

There shall be one (1) Southco Chrome Non-Locking Latch.



Above section bid exactly as written: Yes ____ No ____

FRONT BULKHEAD CABINET ELECTRICAL

There shall be a front electrical cabinet built on an angle to store the Symplex Solid State System.

The door shall be locking Southco Chrome Latch. The door shall be removable and have a vent to allow heat to escape.

Above section bid exactly as written: Yes ____ No ____

SS CABINET ABOVE FORWARD ACTION AREA

There shall be one cabinet located above the forward action area. The cabinets shall have (1) aluminum shelf painted white in each cabinet.

Above section bid exactly as written: Yes ____ No ____

NO CPR SEAT EXTENDED ACTION AREA COUNTERTOP

The forward action area shall be extended.

Yes ____ No ____

SS CABINET ABOVE CPR SEATING LOCATION

The upper area where the CPR Seat would normally go with a cabinet in the upper area. The cabinets shall have (1) aluminum shelf painted white in each cabinet.

Yes ____ No ____

SS CABINET ABOVE EXTENDED SECOND ACTION AREA

There shall be a cabinet located above the extended rearward action area directly above the counter. The cabinet shall have one (1) painted aluminum adjustable shelf.

Above section bid exactly as written: Yes ____ No ____

SS CABINET DIRECTLY BELOW THE UPPER CABINET

There shall be an open cabinet with no doors directly above the second action area.

Yes ____ No ____

SS CABINET BELOW SECOND ACTION AREA COUNTER

There shall be a cabinet located below the second action area counter. The cabinet shall have one (1) aluminum painted adjustable shelf.

Above section bid exactly as written: Yes ____ No ____

SS CABINET REAR UPPER AREA

There shall be one cabinet located in the upper rear area of the street side cabinet. The cabinet shall have one (1) aluminum painted adjustable shelf.

Above section bid exactly as written: Yes ____ No ____

SS CABINET REAR CENTER AREA

There shall be a cabinet located directly aft of the second action area counter. The cabinet shall have one (1) aluminum painted adjustable shelf. The dimension shall be 33-1/2" W x 23-1/2" High and as deep as possible.

Above section bid exactly as written: Yes ____ No ____

REAR DOOR OVERHEAD CABINET

There will be a cabinet located directly above the rear patient entry doors. The cabinet shall have full length extruded handled sliding Plexiglas doors.

Yes ____ No ____

GRAB BAR ABOVE COT

One (1) 1.25" diameter x 72" long stainless steel grab bar shall be provided and securely fastened to the ceiling over the primary cot. The grab rails shall be fastened with bolts, washers and nuts of the appropriate dimension, through the interior ceiling panel and through the .090" aluminum accessory plate welded into the roof structure.

Assist rails fastened with self-tapping machine screws are not acceptable. These grab rails must meet or exceed AMD Standard 008, Load Test for Ambulances Patient Compartment Grab Rail.

Above section bid exactly as written: Yes ____ No ____

UPHOLSTERY All vinyl upholstery shall be vacuum formed seating, applied over high density foam. For seat cushions, the foam must be 2.5" thick. For back and head rests, it shall be 2" thick.

Because of this agency's concern for reducing the exposure of stitched seams to fluid borne pathogens - all seat cushions, back, arm, head rests and header pads shall be vacuum formed seamless design. Designs using piping, welts, stitched seams, or heat sealed joints to join upholstery panels is not acceptable. Each cushion shall be backed by 1/4" laminated wood. All upholstery must be easily removable to facilitate cleaning in case of contamination.

Exact color shall be determined at the pre-build meeting.

Above section bid exactly as written: Yes ____ No ____

SEAT CUSHION ATTACHMENT

To further aid in easy removal for cleaning and disinfecting, all seat cushions shall be attached to seat bases using Velcro or 3M Dual-Lock fastening systems.

Above section bid exactly as written: Yes ____ No ____

PADDED TRIM

To mitigate injury to passengers, trim pieces consisting of antimicrobial high density foam that is solid throughout the material and wraps around the edges and corners for protection, Trim shall match seating upholstery:

- A. At the vertical outside corner of the cabinet forward of the attendant seat
- B. At the upper horizontal and vertical corners above the action area
- C. At the upper horizontal and vertical corners above the defibrillator shelf

NOTE: A sample of this material must be provided with the bid.

Above section bid exactly as written: Yes ____ No ____

FLOOR COVERING

There shall be provided a heavy duty commercial grade vinyl floor covering the interior patient compartment. The floor covering shall be Lonplate II heavy-duty safety vinyl. The floor covering shall be constructed of multiple layers composed of polyvinyl chloride (PVC) resin, plasticizers, fillers and pigments. The co-calendar war layer shall be formulated to provide maximum resistance to foot traffic and most commercial and healthcare chemical. The middle layer shall provide dimensional stability, sound-absorbing properties and resiliency under foot. The floor shall be heavy duty insulated and sound proofing. The flooring shall extend the full length and width of the patient compartment consisting of a minimum of ¾ inch plywood, seven ply exterior grade. The flooring shall be covered with a no wax commercial heavy duty vinyl covering diamond shape Lon plate or similar product (Gunpowder Gray #424TX). The framing system and framing welding techniques shall be in accordance with manufacturer's specifications. Aluminum sub floor shall be 1/8 inch between the frame and plywood floor shall be installed. The vinyl flooring is to be extended up the sidewall a minimum of three inches (3").

Flooring shall meet or exceed all ASTM and / or NFPA Standards as pertains to friction, flame spread, smoke density, abrasion resistance, flexibility and chemical resistance.

This agency is concerned with ambulances built utilizing plywood in the interior flooring, so for that reason the purchasing agency is requesting that all bidders provide the following type of flooring material. Due to the industries standard plywood and the fact that this agency may elect to remount the modular body as some time in the future, it is our concern that plywood flooring has the tendencies of rotting and mildew thus we have elected to go with the following floor composite material. This material is readily available to all ambulance manufacturers. NO EXCEPTION

The sub flooring shall be Coosa Composite "Bluewater Series 26" boards that consist of polyurethane foam filled throughout with layers of continuous strand glass and woven roving fiberglass:

- The flooring density shall be 26 lbs pcf. - (ASTM C271).

- *BENEFITS:*

- * 30% to 40% lighter than plywood
- * NO water rot or insect infestation
- * Less than 1% water absorption
- * Dimensionally stable.
- * Mold, mildew and algae resistant.

Bidders must provide third party laboratory testing for equal to the proposed sub-floor material, set forth by the National Highway Traffic Safety Administration. In addition the composite material must meet the guidelines set forth by the SAE standard J369a. NO EXCEPTIONS.

Above section bid exactly as written: Yes ____ No ____

REAR THRESHOLD

There shall be a 6" wide, 16 ga. Formed, waterfall style stainless steel threshold protector installed on the rear interior of the body. The protectors shall run the entire width of the floor at the door opening. A 2" wide, adhesive-backed non-skid material shall be installed on the threshold piece to assist with safe entry and exit from the vehicle.

Above section bid exactly as written: Yes ____ No ____

CEILING HEADLINER The patient compartment headliner shall be constructed of durable, white glossy formica. The headliner shall be securely affixed to the roof bows. There shall be a full-length inspection access/wire race in the center of the ceiling, which provides access to the wiring harness and antenna bases/leads. In areas where the overhead assist rails are mounted, a 1/3 aluminum plate shall be installed. The access shall have a removable padded vinyl cover.

Headliners with padded vinyl or un-backed fiberglass materials will not be acceptable due to their potential for contamination, tears, cracking and spalling, thus involving costly repairs.

Above section bid exactly as written: Yes ____ No ____

CABINET LAMINATE COLOR

The laminate color for the outside finish of all cabinets shall be glossy gray. The laminate color for the inside finish of the cabinetry shall be white.

Exact color shall be determined at the pre-build conference.

Above section bid exactly as written: Yes ____ No ____

ACTION AREA

This area shall have inside / outside access to the on board medical oxygen cylinder.

Directly attached to the above area shall be the action area. This area shall have a STARON countertop, equal to corian brand. EBONY GRAY in color with lip.

Bidders that offer ABS, Formica or Poured Type covered countertop will be considered non-responsive and that bid will be rejected. NO EXCEPTION.

The action area shall be located on the forward driver's side of the module. The action area shall contain a switch panel that controls the lighting, AC/Heat, exhaust fan and other specified equipment.

The action area shall also contain connections for a suction device, oxygen regulators and electrical connections. There shall be provided a LED light located underneath the overhead cabinets. There shall also be provided access to compartment through a window covered with a hinged Plexiglas door.

The action area shall have a counter top that provides the maximum sized work area possible.

The action area counter shall be extended in lieu of the CPR seat location. It shall contain the same type countertop as the forward area.

Above section bid exactly as written: Yes ____ No ____

OXYGEN VIEWING PORT

There shall be a flat Plexiglas viewing door on the forward section of the Action Area allowing access to the main oxygen storage cylinder. The door shall have a full length extruded handle.

Above section bid exactly as written: Yes ____ No ____

SIDE ENTRY STEP WELL

There shall be provided inside the module side entry door, a step well utilizing two steps. The two step well shall be fabricated using heavy duty aluminum diamond plate.

The step well shall be approximately 32 inches in width x 20 inches in depth. The step platforms shall be a minimum 9 inches deep and the steps approximately 7 inches in height.

Above section bid exactly as written: Yes ____ No ____

ATTENDANT'S SEAT

A rear-facing, high back attendant seat shall be located at the head end of the primary cot. The material shall be sixty (60) ounce vacuumed formed, seamless vinyl compliant with OSHA regulations for easy removal of blood-borne pathogens. The seat shall be mounted on a powered coated black two (2) – position swivel base with the ability to lock in the forward and rear facing positions and shall be securely bolted through the subfloor structure. The seat shall incorporate a built-in Child Safety Seat equipped with a five (5) – point harness. An integrated three (3) – point, retractable adult lap/shoulder ALS seat belt shall also be provided. The mounting hardware, seatbelt materials and configuration shall be in compliance with the most current applicable revision of FMVSS and KKK-A-1822. Seating constructed of or containing cloth, machine-stitching and/or welt shall not be allowed. NO EXCEPTIONS.

Above section bid exactly as written: Yes ____ No ____

ATTENDANT SEAT BASE

The attendant seat shall be mounted to a custom metal built box.

The metal box shall have a diamond plate door with a latch installed.

Above section bid exactly as written: Yes ____ No ____

PASSENGER'S SIDE

ALS CABINET

The ALS cabinet is located in the front of the module on the passenger side. The cabinet shall have two (2) upper doors with Plexiglas inserts. The center shall have a 8" slide drug drawer that locks. The bottom section shall have two (2) Plexiglas inserts hinged doors. There shall be two (2) Aluminum painted adjustable shelving installed. Shelf will have rubber edging installed all the way around the top of the lip.

Additionally, the cabinet shall be accessible from outside. The exact layout shall be determined at the customer's requirements.

Above section bid exactly as written: Yes ____ No ____

CABINET BEHIND THE ATTENDANT SEAT

There will be a storage cabinet located directly behind the attendant and just below the pass-thru window at the bulkhead area. The top of this cabinet will be utilized for additional storage. The top shall be covered with solid surface material with a lip.

The cabinet shall have lift up storage. Radio conduit will be run to this cabinet.

Above section bid exactly as written: Yes ____ No ____

SQUAD BENCH

The squad bench shall be 22" deep x 73" long, and have a split lids with storage under the forward section. The front face of the squad bench shall be fabricated from ¾" plywood. The forward lid shall have a gas prop style hold-open device and a latch that automatically holds the lid closed (preventing opening in case of accident). The lid shall automatically open when the latch is released.

Three [3] sets of retractable seat belts are required for seated passengers. The retractors shall be automotive style with plastic housings. The lid will be fitted with a removable cushion covered with a heavy grade fabric backed vinyl that meets FMVSS 302. A matching full-length backrest will be mounted on the wall behind the squad bench. The backrest pad shall be easily removed for cleaning and reinstalled without special tools.

Above section bid exactly as written: Yes ____ No ____

SEATBELT BUCKLES ON SQUAD BENCH FACE

Three [3] sets of retractable seat belts shall be installed on the face of the squad bench to restrain a patient on a secondary litter.

Above section bid exactly as written: Yes ____ No ____

SAFETY WEB CARGO NET AT FORWARD END OF SQUAD BENCH

A cargo net shall be installed at the head of the squad bench. This net shall be securely mounted from floor to ceiling and also to the vertical wall through ¼" aluminum backer plates. This net must not be manufactured by the ambulance manufacturer but by a 3rd part certified to manufacture and distribute restraint systems. All equipment used in the manufacturing process must simulate dynamic, static and environmental conditions to insure compliance with SAE and FMVSS regulations. Individual components shall be pre and post tested to ensure product integrity.

NO EXCEPTIONS ALLOWED FOR THIS REQUIREMENT

Above section bid exactly as written: Yes ____ No ____

SHARPS / WASTE DISPOSAL AT HEAD OF SQUAD BENCH

A 4" sharps drop and waste storage shall be provided in the squad bench lid. The opening shall align with sharps and trash container (specified elsewhere in this specification) installed beneath the bench lid. The opening shall be covered with a hinged 1/4" thick Red Plexiglas door. A vinyl biohazard sticker shall be applied to the Plexiglas door in accordance with OSHA regulations.

Above section bid exactly as written: Yes ____ No ____

CS UPPER SQUAD BENCH CABINET

A cabinet shall be located over the squad bench at the ceiling level, rearward of the entry/egress door opening. This cabinet shall be divided into two (2) separate sections. The cabinet shall be finished in the same material as the rest of the interior cabinets. These cabinets shall have sliding Plexiglas doors and full length extruded aluminum handles.

Above section bid exactly as written: Yes ____ No ____

SECTION 4.0 - COT EQUIPMENT AND MOUNTS

COT FASTENER SYSTEM

A Stryker #6370 dual position, floor cot mount shall be supplied (department shall specify model number for positioning during pre-construction conference). Additionally, this vehicle must meet or exceed AMD Standard 004, Litter Retention System.

In addition the Stryker Safety hook shall be mounted in the center position.

Above section bid exactly as written: Yes ____ No ____

SECTION 5.0 - MEDICAL EQUIPMENT AND COMPONENTS

IV HOLDER

There shall be provided two (2) each Cast Products 2008-1 recessed IV holders shall be supplied. These shall be located at the head and foot areas, two (2) over the primary cot. They shall have a rubber, foldaway storage when not in use. Each holder must have the capacity to hold two (2) bottles and have Velcro securing straps.

Above section bid exactly as written: Yes ____ No ____

SUCTION SYSTEM

ASPIRATOR

A RICO RS4X disposable aspirator will be installed in the action area and connected to the vacuum inlet by a quick connect coupler. A semi-rigid pharyngeal suction tip and 10 feet of clear plastic tubing will be included.

The system shall be located in the Action Area. Additionally, the system shall be connected to the 12 volt electrical system and be controlled by a switch in the Action Area.

Above section bid exactly as written: Yes ____ No ____

VACUUM PUMP

An electric suction pump shall be supplied and installed in the street side #2 compartment and be covered with a protective metal grating. The self-sealing vacuum outlet shall be mounted on the action area wall next to the oxygen outlets. To prevent premature fatigue of the suction plumbing, the line from the vacuum pump to the wall outlet shall be .375" I.D. double braded neoprene hose. This suction aspirator shall have the capability of attaining a vacuum of 300 millimeters of mercury within four (4) seconds. The vacuum control regulator panel shall be installed on the action area wall adjacent to the vacuum outlet and the oxygen outlets. This control panel shall contain a vacuum gauge calibrated on a dual scale, to 750 mmHg or 30 inHG. A quarter-turn adjustment vacuum control and shut-off valve to adjust the vacuum levels or to discontinue suction immediately shall be integral to the control panel transparent non-kinking clear plastic tubing and a operator's manual.

Above section bid exactly as written: Yes ____ No ____

VACUUM OUTLET

One (1) Ohio style quick disconnect vacuum outlet shall be provided and installed in the Action Area.

Above section bid exactly as written: Yes ____ No ____

SECTION 6.0 - OXYGEN EQUIPMENT AND COMPONENTS

OXYGEN SYSTEM

The medical oxygen system shall be capable of storing and supplying a minimum of 3000 liters of oxygen. A suitable high-pressure hose shall be provided. The concealed oxygen supply hose shall be .250" ID, .50" OD nylon based with polyester reinforcing. This electrically conductive hose shall be certified to 1,875 psi and a 7,500 pound bursting rating.

The fittings shall be DISS and Flare, and securely crimped to the barbed fitting by means of compressed copper sleeves. Oxygen supply hose shall be routed through the ceiling of the ambulance body and be secured with non-abrasive plastic clamps.

The entire system shall be subjected to a 200-psi leak test for 24-hour before installation of panels or covers that may obscure or hide the system components. After the vehicle is completed, a test as prescribed by AMD Standard 015 shall be conducted for a period of two (2) hours to insure system integrity. This test shall be conformed utilizing nitrogen gas to purge the lines of all moisture and foreign debris. Upon completion the test, the lines shall be bled free of nitrogen and capped. This medical oxygen system shall meet or exceed AMD Standard 012, Ambulance Main Oxygen System Test.

Additionally the O2 system will be programmed into the Symplex Solid State Electrical System and controlled from both the Front and Rear Monitors Color Displays.

The Monitoring must be capable of showing oxygen content levels and an alarm once the oxygen reach's below 500L. NO EXCEPTIONS.

Oxygen control through a Transducer.

OXYGEN OUTLETS

The oxygen system shall have two [2] self-sealing outlets securely mounted on the 1st action area wall. The bidding agency shall specify the brand of quick-connectors to be used.

An exterior storage compartment shall house the certified oxygen tank retention system as described and certified. The retention system shall be located in the street side front compartment "A1". The purchaser {Buyer} shall provide the Oxygen Tank.

One (1) Additional O2 Outlet to be provided and installed on the squad bench wall.

Oxygen outlets to be Amvex brand with Ohio style fittings. (Or Equal)

Above section bid exactly as written: Yes ____ No ____

MAIN OXYGEN CYLINDER BRACKET

There shall be a Universal Zico Cylinder Bracket QRM-V O2 bottle mount to allow the department to utilize both "M" cylinder and "H" Cylinder bottles. There will be stainless steel straps.

One (1) Oxygen Wrench shall be provided and mounted in the main oxygen compartment on a tethered line.

NOTE: Manufacturer's that offer an in-house built oxygen cylinder holder will not be allowed, unless they can show the actual crash testing data.

Above section bid exactly as written: Yes ____ No ____

SECTION 7.0 - ENVIRONMENTAL SYSTEMS AND COMPONENTS

HEATING / AIR CONDITIONING DUCTED SYSTEM

Heating and air conditioning for the patient compartment will be provided by a combination heat/ac unit that will be ducted with six (6) Vents down the middle of the module ceiling.

The heater portion will have a BTUH capacity of 35,000, the air conditioner will have a BTUH capacity of 32,000. A three-speed blower fan capable of 650 CFM on the highest setting will be included.

To reduce the potential for condensate leakage, dual 3/8" ID drain hoses shall be installed on the AC drain pan. The drain hoses shall terminate below and outside the ambulance body.

The combo system shall be provided with an electrically controlled water shutoff valve which shall close to stop the flow of hot water to the heater whenever the air conditioning is operating.

NOTE: An additional Complete Shut Off/On valve on from the rear.

System to be controlled thru the Symplex Solid State Electrical set up with controls from both the Front and the Rear Display Monitors.

The combo heat/air conditioning unit shall be installed over the walk through.

Bidder will be required to perform all warranty work covered under the OEM / Manufacturer warranty of the Ambulance Module.

Above section bid exactly as written: Yes ____ No ____

THERMOSTAT

A thermostat built into the Symplex System with low voltage heating and air conditioning thermostat shall be provided to control the specified environmental systems.

AUXILIARY AC CONDENSER

There shall be an auxiliary AC Condenser mounted under the module body. NO EXCEPTIONS.

The AC/HEAT System shall be certified to meet the KKK guidelines.

Above section bid exactly as written: Yes ____ No ____

EXHAUST FAN

The patient compartment of this ambulance will be ventilated with fresh outside air via one (1) static intake vent and one (1) power exhaust vent. The system shall be capable of completely exchanging the air volume within the patient compartment every two (2) minutes. The location of the intake and exhaust vents shall be as indicated in the attached drawings.

Controlled thru the Symplex Solid State System built into the rear display monitor.

Above section bid exactly as written: Yes ____ No ____

SECTION 8.0 - ELECTRICAL COMPONENTS

12 VOLT DC ELECTRICAL SYSTEM

SYMPLEX - ELECTRICAL SYSTEM

This agency is requesting that the electrical system be designed and manufactured based on solid state programmable logic control systems that have been engineered to perform all the electrical functions required in emergency vehicles in a manner that is cost effective, flexible, and reliable.

The electrical system modules shall be designed for simple, quick replacement. The system shall incorporate a fully programmable design (using password access protection) allowing the user to select and define how the system will operate now and in future revisions

The complete system shall include one or more control modules connected to one or more color graphic touch screens installed in the front and rear of the vehicle. The Touch screens shall have a minimum size of 10.2 inches measured diagonally.

The interconnection between control nodes and touch screens shall be implemented using plug-in 4-conductor cables that will constitute a high-speed communication network based on the CAN peer-to-peer protocol.

The architecture of the system must be modular to allow each node in the network to be individually programmable.

The modularity of the system must also allow for easy variations in the number of inputs and outputs to be controlled.

All nodes in the network must be assembled using a minimal number of building blocks. These building blocks must be interchangeable between nodes to simplify maintenance and minimize the number of replacement parts to be stocked.

The system must run a self-diagnostic test at start up including all input and output functions.

The operation of outputs as a result of the activation of different inputs shall be factory programmed. It must also be customer programmable using intuitive software optionally supplied by the system manufacturer.

The system shall provide an independent supply voltage terminal rated at 5V, 0.5 Amps to be used as power source for external Oxygen pressure transducers.

Essential technical characteristics shall include:

- Operation in the industrial temperature range (-40C to +85C)
- Reverse polarity, over voltage and load dump protection
- "Sleep mode" for low key-off current drain
- Large design safety factors for reliable operation
- Simple, color coded plug-in connections for all input and output wiring

General requirements:

Requirements for all input sections of any control node:

A control node shall have total of (10) analog inputs.

- Each analog input shall be capable of being factory programmable for operation in the 0 to 12V or 0 to 5V voltage range.
- The analog inputs shall be capable of interfacing with hall effect sensors for current measurements. They must also be able to read voltage inputs for battery power monitoring and oxygen pressure and alarm measurements.
- The voltage measurements shall have a visual indication and provide high/low voltage alarms.

A control node shall have 60 digital signal inputs,

- Each digital input shall be optically isolated and factory or customer programmable to operate from signals active at 12V or ground. These inputs shall also be filtered to prevent responses to spurious signals.

Requirements for power outputs:

A control node shall have a total of 60 power outputs.

- Each output shall be capable of carrying a 20 Amp current
- Each output shall be capable of being factory connected to produce a 12V or Ground signal.
- Each individual output shall have a built-in over current protection circuit capable of being either factory or customer programmable for different current limits.
- After the overcurrent protection circuits shuts down the output due to an overcurrent condition, the system will automatically attempt to restart the output a total of up to two (2) times. This number of restart attempts shall be programmable by the customer.
- Each power output shall be individually capable of operating in the following modes:
 - Instantaneous "ON/OFF"
 - Gradual output ramp to fully "ON"
 - Gradual output ramp to fully "OFF"
 - Pulse Width Modulated (PWM)

Requirements for all Touch Screens:

- **Minimum size shall be (2) 10.2 inches measured diagonally**
- Rear mounted touch screen shall incorporate provisions for using a VESA standard bracket.
- Graphics shall be fully configurable as to size, shape, color, and function.

- Each touch screen shall be connected to the CAN network using a plug-in four conductor shielded cable carrying the Network data and the 12V and Ground supply wires.
- The touch screen sensing circuitry shall use the 4-wire resistive technology.
- Adjustable backlighting Intensity

Each bidder must show how their prospective solid state system functions. System Modules must be designed to operate on 12VDC or 24VDC.

It is our intent to have a multiplex system that is easily programmable and designed to perform a variety of functions such as:

- Emergency Light Flashing with different Patterns
- Load Manager and Load Sequencer with High Idle control
- Complete manual or automatic HVAC Control based on equipment supplier sensors
- Auto Light Dimming
- Oxygen pressure Indicator
- Time delay operations
- Single output control of vacuum pumps and fans
- Open door indication and seat occupancy monitoring and alarm
- Real time clock with stop watch and elapsed time indicator and alarm
- Vehicle Data Recording of inputs, outputs, HVAC controls, seatbelts, occupancy, etc.
- Other customer specific functions.
- Software updated by USB (in the field or remotely via internet). Password authorization required.
-

Location of the system shall be in the rear patient compartment on the rear of the action area wall with a single door that is removable for servicing.

All functions must be controllable from BOTH the front and rear touch screens.

Warranty and Technical Support:

Warranty and Technical support shall cover 6 years or 100,000 miles.

The bidder's electrical service support shall be provided via phone, internet, or overnight replacement of defective parts

All bidders must show to have been trained BY the OEM of the E-Plex system on installation, use and trouble shooting of the system. NO EXCEPTIONS.

(Documentation must be included with each bidder's package.

The electrical system and associated equipment shall comply with all Federal Motor Vehicle Safety Standards, Federal Motor Carrier Safety Regulations, and shall also conform to all applicable SAE recommended standards and practices.

The apparatus body and accessory electrical equipment shall be served by circuits separate and distinct from the chassis circuits. All wiring shall be permanently color coded and marked to identify each wire for its entire length.

Wiring shall be routed in conduit or loom that is rated to a minimum of 300° Fahrenheit and shall include a service loop of wire that will permit replacement of wire terminals. All conduits, looms and wiring harnesses shall be securely fastened to the body or frame with insulated metal cable straps.

All electrical system components and wiring shall be located and installed in such a manner that facilitates easy removal and servicing.

LOW VOLTAGE MONITORING SYSTEM

There shall be installed in the Symplex Electrical System monitor thru the front display monitor, as an integral function of the ambulance conversion main power circuitry that continually monitors electrical system voltage. This system shall activate an audible alarm warning to indicate that the system voltage has reached or fallen below the 11.7 volts. There shall be a push button switch to deactivate the audible alarm. The audible alarm shall be located in the drivers control console below the main switch panel.

The electrical system and associated equipment shall comply with all Federal Motor Vehicle Safety Standards, Federal Motor Carrier Safety Regulations, and shall also conform to all applicable SAE recommended standards and practices.

The apparatus body and accessory electrical equipment shall be served by circuits separate and distinct from the chassis circuits. All wiring shall be permanently color coded and marked to identify each wire for its entire length.

Wiring shall be routed in conduit or loom that is rated to a minimum of 300° Fahrenheit and shall include a service loop of wire that will permit replacement of wire terminals. All conduits, looms and wiring harnesses shall be securely fastened to the body or frame with insulated metal cable straps.

All electrical system components and wiring shall be located and installed in such a manner that facilitates easy removal and servicing.

Above section bid exactly as written: Yes ____ No ____

MARKER LIGHTS

There shall be provided the proper number of LED ICC / marker lights located on the apparatus body above the drip rails. The marker lights will be Grote manufacturer and flush.

Manufacturers who offer corner 360 degree light housing will not be acceptable, due to not being able to replace if the unit needs to be remounted, which only allows one manufacturer the ability of obtaining the parts.

Above section bid exactly as written: Yes ____ No ____

MODULE POWER DISCONNECT SWITCH

An "On/Off" style master module disconnect switch shall be installed in the left side of the floor console recessed for ease of access. The switch must be capable of carrying the load of both OEM batteries when in the "On" position, as well as completely disconnecting both batteries when in the "Off" position. This switch shall NOT disconnect battery power to the chassis circuits, but to the module, or converter added circuits only. The switch shall be recessed as to not interfere with anything. Switches that have multi-position settings allowing power from either battery independent of the other will be unacceptable.

Above section bid exactly as written: Yes ____ No ____

Warning Light Sequencer System

WARNING LIGHT SEQUENCE The electrical system shall be provided with the ability to sequence warning light loads both on "startup" and "shutdown" in order to reduce load shock caused by the sudden activation or deactivation of loads.

Above section bid exactly as written: Yes ____ No ____

CUSTOM CENTER CONSOLE – CAB

There shall be provided a custom center console in the cab, which shall replace the OEM center console, and shall be located between the driver and passenger seats. The console shall come complete with the necessary switch panels and other controls as required by these specifications.

The switch panel shall incorporate rocker style switches, door and compartment indicator lights, voltmeter and amp gauges.

The console shall be constructed to make the maximum use of the space available. As the Department requires, the console shall contain room for various map books and glove boxes.

The front console shall have two (2) Cup Holders.

Console to house the Symplex 10 inch front monitor at an angle to visibility see the display. Do not mount flat.

The console shall be covered with a scorpion paint-type material.

NOTE: Exact layout to be determined by the purchasing agency.

Above section bid exactly as written: Yes ____ No ____

LICENSE PLATE HOLDER

A cast aluminum license plate bracket with polished flanges shall be recessed into the rear riser. It shall be provided with two (2) LED license plate lights.

Above section bid exactly as written: Yes ____ No ____

BACK UP ALARM

An audible alarm shall be installed to activate when the vehicle is placed into reverse gear. There shall be installed on the front monitor display and wired through the vehicle electrical system, a momentary cutoff switch to disable the alarm. The switch shall automatically reset each time the vehicle is placed into reverse gear.

Above section bid exactly as written: _____

12 VOLT OUTLETS

There shall be provided Two (2) 12VDC outlet power source for cigar lighter shall be provided; one in the action area wall and one above the top of the ALS cabinet.

Above section bid exactly as written: Yes ____ No ____

PATIENT COMPARTMENT CLOCK

One (1) Integral Symplex Clock digital clock shall be built into the Symplex System with displays on both the front and rear monitors. It shall feature a digital display of time (hours: minutes), a sweep second hand, elapsed time counter (hours: minutes), preset alarm intervals at one (1) minute, two (2) minutes, five (5) minutes and ten (10) minutes. **NO EXCEPTIONS**

Above section bid exactly as written: Yes ____ No ____

PATIENT COMPARTMENT LIGHTS

INTERIOR DOME LIGHTING

General lighting for the patient compartment shall be as follows: Eight (8) overhead Whelen LED dome lights shall be mounted, four (4) over the squad bench side and four (4) over the primary cot side. These lights must be recessed into the ceiling headliner, protruding not more than 1 1/2".

These lights are to be controlled by switches in the attendant's switch console. Additionally, four on curbside shall automatically light on their "low" setting when either the side or rear entry doors are opened.

Any lighting system using a rheostat to control lamp intensity is NOT acceptable to this agency.

Above section bid exactly as written: Yes ____ No ____

STEPWELL LIGHT

There shall be provided an LED step well light located at the curbside entry interior door step well.

When the curbside door is open it shall activate the Symplex Solid State System and the timer.

Above section bid exactly as written: Yes ____ No ____

CHECKOUT TIMER SWITCH

A 15 minute spring wound mechanical timer(s) shall be provided and installed to control the squad bench side LED lights specified above. The timer shall be installed in the curbside wall adjacent to the side entry door.

Above section bid exactly as written: Yes ____ No ____

ACTION AREA LIGHT

There shall be provided two (2) 4 inch round LED lights mounted above the work surface, underneath the overhead cabinets.

The action area light shall be controlled thru the Symplex System located in both the front and action area display monitor..

Above section bid exactly as written: Yes ____ No ____

COMPARTMENT LIGHTS

There shall be provided LED strip lights in each exterior compartment that activates upon opening of the compartment doors.

Above section bid exactly as written: Yes ____ No ____

HANDHELD SPOTLIGHT

To aid in night operation, one (1) Optronics Blue Eye 400,000 candle power hand held spotlight with momentary "on" switch shall be provided. This light shall be hard wired to connections beneath the switch console in the cab. This spotlight shall be "shipped loose", but shall include a mounting bracket to allow this agency to mount the light in a location of its own choosing.

Above section bid exactly as written: Yes ____ No ____

SHORE POWER

One (1) Kussmaul "Auto Eject" system inlet, or "shoreline inlet", shall be installed where shown in the attached drawings. It must contain a male inlet connection rated and labeled for 20 amps, be suitable for wet conditions, and be protected by a yellow spring loaded plastic cover. A properly sized female mating plug must also be provided for connection to this agency's wiring.

To protect this device from arcing during connection or disconnection, a time delay and interrupter device shall be installed.

Cover shall be WHITE.

Above section bid exactly as written: Yes ____ No ____

INVERTER PRE-WIRE

Wiring will be furnished and installed for an inverter Vanner:

NOTE: Wiring to run to the Exterior Streetside "B" Compartment upper area.

Above section bid exactly as written: Yes ____ No ____

INVERTER

A Dimension 1200 WATT Inverter with a 50amp battery charger shall be provided. It will be installed in the Exterior "B" Compartment upper area. The area surrounding the Inverter shall have a wire mesh to keep items from being thrown around and causing damage.

110 VOLT AC WIRING AND COMPONENTS

This vehicle shall be furnished with a two (2) wire plus ground 110 volt AC wiring system completely separate from its 12 volt DC system. It must comply with Article 551 of the National Electrical Code and is to be used for powering maintenance devices, battery chargers, etc. while on standby.

The 110 volt system must include two (2) 15 amp GFI circuit breakers mounted in a circuit breaker box located in the electrical cabinet. One breaker shall control and protect the 110 volt outlets located in the patient compartment. The second breaker will control the OEM engine block heater connection and can be used as a "summer switch" to turn off the engine block heater when operation is not desired. Systems that require unplugging the block heater are not acceptable. These circuits shall be powered from the shoreline inlet included in this specification.

Above section bid exactly as written: Yes ____ No ____

110 VOLT RECEPTACLES HOSPITAL GRADE

Three (3) hospital grade 110 volt AC duplex receptacles with green internal pilot lights and stainless steel face plates shall be installed in the patient compartment as follows: one (1) in the action area; one (1) in the curbside front inside/outside upper(ALS) cabinet; one (1) on the streetside wall in the monitor/defibrillator shelf area.

All 110V AC duplex wall outlets shall be GFI protected with energized indicator light and wired to shoreline.

Above section bid exactly as written: Yes ____ No ____

SECTION 9.0 - EMERGENCY WARNING LIGHT PACKAGE

EMERGENCY LIGHTING

There shall be provided a complete LED emergency lighting system. This lighting system shall include the following minimum:

- Five (7) Whelen 900 Series LED across front of module w/chrome flanges
- Two (2) Whelen ION Series LED Grill Lights Len Red/Clear with bezels.
- Two (2) 400 Series LED Front Intersector Lights Red with bezels
- Two (2) 700 Series LED Above Rear wheels. Red / bezels.
- Four (4) 900 Series Red LED Lights with chrome flanges- Two each per Side
- Four (4) 900 Series Red LED Lights with chrome flanges- Rear Mount
- One (1) 900 Series Amber LED Light with chrome flanges- Rear Mount

All lights shall come complete with chrome bezels.

Above section bid exactly as written: Yes ____ No ____

SCENE LIGHTS

There shall be provided six (6) each Whelen 900 series LED scene lights. The lights shall be located each side and rear of the ambulance. In addition each light will have a chrome flange.

The right side scene lights shall activate upon opening of the curb side door. The rear scene lights shall activate by opening the rear door or upon putting the vehicle in reverse.

Above section bid exactly as written: Yes ____ No ____

REAR BRAKE, BACK UP AND TURN SIGNAL LIGHTS

There shall be provided a set of Whelen 600 series LED tail lights on the rear of the ambulance body. Additionally there shall be provided a set of amber turn signals with arrows.

Additionally there shall be provided a cast aluminum recessed tag holder with LED tag light.

All tail lights shall come complete with chrome bezels. NO EXCEPTIONS

Above section bid exactly as written: Yes ____ No ____

SECTION 10.0 - COMMUNICATION COMPONENTS

SIREN

There shall be provided and installed a Whelen WS 295SA1 200-watt siren with full function including PA, Wail, Yelp, Phaser and horn override. In addition the siren shall have the Q2B tone added thru the scan lok.

The unit shall provide horn/siren switch on control panel for siren to horn.

Above section bid exactly as written: Yes ____ No ____

RADIO PRE-WIRE

Two [2] 10-gauge power and two [2] ground wires, two [2] RG58U coax cables, and two [2] PL 259 connectors shall be installed as 'prewires' for the installation of radio communications equipment. Power, ground, and coax shall be terminated and bundled behind the passenger seat. There shall be an 18" service loop at the antenna base locations and a 36" service loop at the terminations in the cab. The PL259 connectors shall be shipped loose in the New Vehicle Owner's Manual pocket.

Exact layout and location of radio pre wire shall be determined during pre construction conference.

Above section bid exactly as written: Yes ____ No ____

SECTION 11.0 - PAINT/LETTERING/DECALS

AMBULANCE BODY AND CHASSIS PAINTING

The chassis shall be OEM White. The cab roof shall remain the OEM white. The module body shall be painted with PPG white to match the cab/chassis.

Above section bid exactly as written: Yes ____ No ____



LETTERING

Lettering installed per (Purchasing Agency) specifications

The paint, striping and lettering design proposal shall match the layout specified above.
NO EXCEPTION.

Paint Stripe and Lettering to be determined at the pre-construction conference. Bidder must provide pricing and it will be the responsibility of each bidder to insure that their bid contains the correct information.

Above section bid exactly as written: Yes ____ No ____

AMBULANCE MARKING PACKAGE

The vehicle shall be supplied with lettering and 'Star of Life' symbol decal package as described in Federal Specifications KKK-A-1822D 3.16.4. The "ambulance marking package" is to be installed per department required locations.

Decals: Install 32" Star of Life decal on Module Roof.

Above section bid exactly as written: Yes ____ No ____

MODULE UNDERCOATING

A non-flammable / non-combustible water based automotive undercoating shall be applied to the underside of the body.

Manufacturer's must not undercoat the underside of the body until after final inspections, this will allow for inspection of the under body without the undercoating applied. Manufacturer's that undercoat prior to this inspection will be grounds for non-acceptance of the vehicle.

Above section bid exactly as written: Yes ____ No ____

ADDITIONAL SIGN/DECALS

Two [2] self adhesive "NO SMOKING OXYGEN EQUIPPED" AND "FASTEN SEATBELTS" sign (1) shall be installed in the 1st Action Area.

Above section bid exactly as written: Yes ____ No ____

SECTION 12.0 - MISCELLANEOUS

FIRE EXTINGUISHER

There shall be one (1) Five pound (5#) A-B-C type fire extinguisher provided and shipped loose with the vehicle on delivery.

Above section bid exactly as written: Yes ____ No ____